monary artery, by which the vessel was much flattened. The coagulum lay beneath all that portion of the reflected layer of pericardium, extending from the zonæ tendineæ of the right and left ventricles to where it is reflected on the under surface of the fibrous layer of the membrane. The serous membrane was perfectly whole, except at a small point corresponding to the junction of the right ventricle with the left auricle, where there was a small aperture through which the small quantity of blood in the bag of the pericardium had evidently escaped. The clot was hard and solid, and was fixed in its position, from its being completely entangled in the cellular tissue lying between the serous membrane and the outer coat of the arteries, and between these two vessels at the point where the pulmonary artery passes anterior to the aorta; in this spot the coagulum was thicker than in any other.

The coagulum occupied exclusively all that space external to the vessels, and underneath the serous membrane; it passed downwards on the auricles to where they join the ventricles, and it also passed some way upwards, beneath that membrane which anatomists describe as descending from the deep layer of the cervical fascia, to become continuous with the fibrous layer of the pericardium.

In other respects the aorta was extensively diseased, being thickly coated from the commencement of its transverse portion, all along its descending course, with bony plates and ætheromatous deposits. Indeed, the only part of the artery which appeared free from this disease was the very situation where the laceration took place; for immediately to the left of the opening there was another large osseous deposit. On comparing the middle and internal coats of the artery, at the seat of rupture, with other parts, they were found to possess scarcely half the thickness, and were much more friable, though the vessel did not present, in any part, traces of acute inflammation. Towards the commencement of the arch the vessel was somewhat dilated, but not to a greater extent than is ordinarily observed in individuals of her age.

The mouth of the innominata was filled with a dark and firm clot, which extended for some distance along this vessel and its two divisions, and appeared to have been produced by the mechanical pressure exercised on it by the clotted blood which lay between its outer and middle coats. The lungs and liver were greatly engorged, no doubt the result of the mechanical pressure exercised on the veins leading from them, and of the almost complete obliteration of the cavities of the auricles.

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51. *Treatment of Hemorrhoids with Chromic Acid.*—Alex. Ure, Esq., reports in the *Lond. Med. Gaz.*, (March, 1845,) two cases of hemorrhoids successfully treated with chromic acid. This substance is a most powerful oxidizing agent, and is exceeding convenient of application, inasmuch as it consists of a thick crystalline pap, which, when rightly managed, does not spread beyond the prescribed limits; and so soon as its erosive operation is finished, it passes into the state of inert pulverulent sesquioxide.

The first case was a tailor 31 years of age, who had, at the verge of the anus, a dark hemorrhoidal tumour, the bigness of half a walnut, of which the surface is ulcerated and extremely painful. The tumour had been extruded several days, and various attempts at reduction proved of no avail. The patient seemed in a most deplorable state, haggard, and worn out by suffering, from which he could only obtain a brief respite by observing a half bent posture. He had been subject to piles for some years. The bowels were open. Mr. U. applied the chromic acid freely over the whole of the diseased surface.

April 29th.—Patient says that he felt considerable uneasiness in the part during the whole afternoon following the application. He is now quite comfortable in all respects. A considerable slough has been detached, and the excrescence is withered and shrunk to the bulk of a raisin. Bowels confined. Half an ounce of castor oil.

May 1.—Complains of a feeling of aching referred to the sacral region; bowels torpid; inappetence for food; sense of languor and listlessness. To take an ounce of compound infusion of gentian, with a drachm of Epsom salts, every morning.

May 13.—Perfectly cured. The trifling remains of the pile are wholly insensible, and create no inconvenience whatever; his bowels act naturally.

The second case was a married woman, aged 50. For a month previously she had been suffering much from two hemorrhoids situate upon the right side of the verge of the anus, each about the size of a kidney bean, and was anxious to obtain alleviation. Various external and internal means had been already employed, but in vain. She had been troubled with piles at different times during the preceding eight years. Her general health is tolerably good, and the bowels usually regular. Since her last confinement, ten weeks ago, she has complained of shooting darting pain referred to the anus. It was determined to apply chromic acid, which was accordingly done May 30th. It was found necessary to repeat the application on the 1st of June. This caused acute burning pain both times, destruction to a considerable amount of the diseased texture, consolidation of the remainder, and permanent relief from the distressing aliment.

52. *On the Formation of Bone by the Periosteum.* By ALEX. WATSON, M. D.—(*Ed. Med. and Surg. Journ.*, April, 1845.) It was long believed that the periosteum not only conveyed nourishment to the bone which it enveloped, but also mainly, if not solely, contributed to the reproduction of bone in cases of necrosis and fracture. Latterly, however, the accuracy of this opinion has been called in question, and Prof. Muller, of Berlin, maintains that the periosteum has nothing to do with the production of bone. The difference of opinion entertained on this subject led Dr. Watson to enter into a minute and careful investigation of it, and the following are the conclusions at which he has arrived:—

1. That the theories alleging that new bone is formed only by the living parts of the old bone, in cases of necrosis and fracture, are incorrect.
2. That the periosteum has evidently the power to produce new bone of itself, without the aid of the old bone.
3. That the formation of new bone by the periosteum consists, at first, in the deposition of osseous matter in the form of a fine microscopic net-work; and, therefore, that the Haversian canals are only a secondary, not a primary formation in osseous tissue.
4. That in cases of necrosis and fracture, the process of reproduction of bone by the periosteum is the same.

53. *On the Microscopic Texture of Cancer.*—M. DESORMEAUX has recently published a valuable inaugural dissertation entitled *Recherches sur la theorie clementaire de la production des tissues accidentels*, in which he has given an excellent summary of all the recent researches on the intimate structure of cancerous formations.

Müller, and (since the publication of his writings) most other pathologists, has arranged these morbid growths into two great families or groups, viz., the Encephaloid and the Scirrhous. Of the former he makes the following three subdivisions.

1. Carcinoma medullare, *in which there is a predominance, in the medullary mass, of round globules over loose fibrous tissue.* The globules are of various sizes; but the smallest are larger than pus-corpuscles. Each contains a granular subtance or nucleus within. They are very similar, in many respects, to those of common cancer, and of reticulated carcinoma or scirrhus.
2. Carcinoma medullare, *consisting of pale, elliptic, non-elongated corpuscles, and of a fundamental cerebriform mass.* These corpuscles are usually twice or three times as large as the globules of the blood. There is never any appearance of fibres proceeding from their surface, and they rarely exhibit any traces of nuclei within them.
3. Carcinoma medullare *with fibrated or fusiform corpuscles.* This species of Encephaloid structure has at times, on laceration, a sort of fibrous aspect, when the fusiform corpuscles are arranged in a somewhat determinate direction. According to the direction which they assume, the morbid mass will present a radiated or a tufted appearance. In many cases, indeed, their directions are so various that the lacerated surface exhibits no trace of fibres anywhere. The fusiform corpuscles are sometimes nucleated; at other times they contain granular points, but without distinct nuclei. They are elongated on one or two sides into fibres of different lengths. They may be considered as cells that are arrested at the period of the process of transition from the cellular to the fibrous condition.